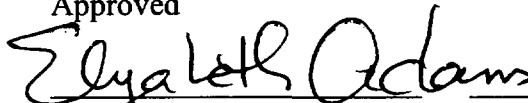


**United States Environmental Protection Agency
Region 9**

Five-Year Review

**National Semiconductor Corporation
2900 Semiconductor Drive
Santa Clara, Santa Clara County, California**

Approved

 SEPTEMBER 30, 2003

Elizabeth Adams

Date

Chief, Site Cleanup Branch
Superfund Division

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List of Acronyms

AMD	Advanced Micro Devices
BGS	Below Ground Surface
BPHE	Baseline Public Health Evaluation
DCE	dichloroethene
GWET	Groundwater Extraction and Treatment
MSCA	Multi-State Cooperative Agreement
MCL	Maximum Contaminant Level
NSC	National Semiconductor Corporation
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
OS/SVE	Ozone Sparging/Soil Vapor Extraction
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
SCR	Site Cleanup Requirement
SVET	Soil Vapor Extraction and Treatment
TCA	1,1,1-trichloroethane
TCE	trichloroethene
USEPA	United States Environmental Protection Agency
UTC	United Technologies Corporation
VOC	Volatile Organic Compound

Executive Summary

The remedy for groundwater contamination at the National Semiconductor Corporation (NSC) Superfund site in Santa Clara, California includes soil vapor extraction and treatment, groundwater extraction and treatment, groundwater monitoring, and institutional controls. This is the second 5-year review for the NSC site, and it covers remedial activities conducted between September 1996 and August 2001. The first review covered activities between September 1991 and August 1996.

Remedial actions conducted at the site are functioning as designed. NSC has continued to conduct soil vapor extraction and groundwater extraction during the past five years. The groundwater pollution plume has remained stable and concentrations of volatile organic compounds have declined across the plume. However, contaminant concentrations remain elevated above cleanup goals throughout the plume. Until cleanup goals are achieved, the remedy is protective of human health and the environment in terms of limiting ingestion of contaminated water through the use of institutional controls prohibiting the use of shallow groundwater.

Recent provisional guidance issued by USEPA Region IX regarding the toxicity of trichloroethene (TCE) significantly lowers the levels at which TCE is considered to pose a risk to human health. This and other recent changes in the methodology of assessing risk from volatile organic compounds (VOCs) requires a re-evaluation of the protectiveness of the remedy in terms of its ability to limit exposure to VOC vapors in indoor air. NSC has been required to re-evaluate human health risk associated with vapor intrusion of TCE.

Five-Year Review Summary Form		
SITE IDENTIFICATION		
Site Name: National Semiconductor Corporation		
EPA ID: CAD041472986		
Region: 9	State: CA	City/County: Santa Clara/Santa Clara
SITE STATUS		
NPL status: Final		
Remediation Status: Operating		
Multiple OUs? no	Construction completion date: 8/19/92	
Has site been put into reuse? NSC has operated the facility continuously since 1967.		
REVIEW STATUS		
Lead agency: State of California		
Author Name: Keith Roberson		
Author title: Engineering Geologist	Author affiliation: CA Regional Water Quality Control Board (Lead Agency)	
Review period: 7/10/02 – 9/13/02		
Date(s) of site inspection: 9/25/01		
Type of Review: (in bold) <input type="checkbox"/> Post-Sara <input type="checkbox"/> Pre-Sara <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input checked="" type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: (in bold) <input type="checkbox"/> 1 (first) <input checked="" type="checkbox"/> 2 (second) <input type="checkbox"/> 3 (third) Other (specify)		
Triggering action: (in bold) <input type="checkbox"/> Actual RA Onsite Construction at OU#___ <input type="checkbox"/> Actual RA Start at OU#___ <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five-Year Review Report <input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 9/30/1996		
Due Date (five years after triggering action date): 9/30/2001		

Five-Year Review Summary Form, continued

Issues:

Two issues identified during the review are 1) the declining effectiveness of groundwater extraction and treatment over time, and 2) potential concerns over vapor intrusion into indoor air, based on the provisional USEPA guidance regarding the toxicity of TCE.

Recommendations and Follow-up Actions:

To address declining effectiveness of the current remedy, NSC is currently evaluating other alternate remedial technologies to determine whether other cleanup technologies could reduce the time until cleanup goals are achieved. To address the vapor intrusion issue, NSC has been required to re-evaluate the potential human health risk associated with vapor intrusion into indoor air.

Protectiveness Statement:

Remedial actions conducted at the site are functioning as designed; however, it is doubtful that groundwater cleanup goals will be achieved for another ten years under the current remedy. In the interim, the remedy is protective of human health and the environment in terms of limiting ingestion of contaminated water through the use of institutional controls prohibiting the use of shallow groundwater. The declining effectiveness of groundwater extraction and treatment does not adversely affect the protectiveness of the remedy because it is the result of declining VOC concentrations in the groundwater.

Recent provisional guidance issued by USEPA Region IX regarding the toxicity of TCE significantly lowers the levels at which TCE is considered to pose a risk to human health. This and other recent changes in the methodology of assessing risk from VOCs requires a re-evaluation of the protectiveness of the remedy in terms of its ability to limit exposure to VOC vapors in indoor air. NSC has been required to re-evaluate human health risk associated with vapor intrusion of TCE, but the results of this evaluation are not available at this time.

By June 30, 2004, we expect to be able to make a more definitive statement regarding the protectiveness of the remedy as it relates to indoor air/vapor intrusion concerns.

**California Regional Water Quality Control Board
San Francisco Bay Region**

Five-Year Review

**National Semiconductor Corporation
2900 Semiconductor Drive
Santa Clara, California**

I. Introduction

This report is the second five-year review for the National Semiconductor Corporation (NSC) Site in Santa Clara. The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board), conducted this review pursuant to the Multi-Site Cooperative Agreement (MSCA) between the U.S. EPA Region IX and the Regional Board. The purpose of a five-year review is to ensure that a remedial action remains protective of public health and the environment and is functioning as designed. The five-year review is required because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

NSC begins manufacturing semiconductors at the site	1967
Soil and groundwater contamination discovered at the site	1982
Removal of 22 underground solvent storage tanks and acid waste sumps and associated piping; Excavation of 400 cubic yards of contaminated soils	1982 - 1991
Groundwater extraction and treatment begins. NPDES permit issued for discharge of treated effluent.	1984
NSC accepts responsibility for groundwater contamination from adjacent UTC facility	1987
NSC site and AMD site (1165 East Arques Avenue) added to NPL	July 1987
Baseline Public Health Evaluation completed for NSC site	July 1990
Regional Board and USEPA approve NSC's Final RI/FS workplan	Sept 1991
Regional Board adopts Orders No. 91-137, 91-139, and 91-140, the Final Site Cleanup Requirements for Subunits 1, 2, and 3 of OU 1.	Sept 1991
USEPA issues Record of Decision (ROD) for NSC and AMD sites	Sept 1991
NSC submits first Five-Year Review Report to Regional Board	Sept 1996
Low levels of perchlorate detected at former UTC facility	2000
Ozone sparging/soil vapor extraction system installed at a former source area	2001

III. Background

Physical Characteristics

The NSC Site is approximately 60 acres in size and is located between Kifer Road, Central Expressway, and Lawrence Expressway in the city of Santa Clara, California. A groundwater contaminant plume extends downgradient from the NSC property beneath an off-site commercial area. Contaminants from other source areas, including one other Superfund site, commingle with the NSC plume in the off-site area. The groundwater plume from the NSC facility and adjacent sites is managed by the Regional Board as Operable Unit 1 (OU 1). OU 1 has been subdivided into Subunits 1, 2, and 3, as shown on the attached map. Subunit 1 lies mostly within the city of Santa Clara and consists of the NSC campus and the adjacent former United Technologies Corporation (UTC) facility at 1050 East Arques Avenue. Subunit 2 consists of another Superfund site, the former Advanced Micro Devices (AMD) site (also known as Monolithic Memories) at 1165 East Arques Avenue in Sunnyvale. Subunit 3 consists of the commingled solvent plume downgradient of the NSC, UTC, and AMD facilities and lies entirely within the city of Sunnyvale. Santa Clara and Sunnyvale each have populations of approximately 100,000, and are part of the San Francisco Bay Metropolitan Region, which has a total population of about six million. OU 1 is located in a light industrial and commercial area dominated by the electronics industry that is known as the Silicon Valley. Most buildings in the area are low-rise developments containing office space and research and development facilities. NSC has occupied the facility continuously since 1967. Semiconductors were manufactured at the facility between 1967 and 1999. The facility is now used for offices, laboratories, and support services.

This five-year review covers remedial activities conducted by NSC in Subunits 1 and 3 only. Because the AMD site at 1165 East Arques Avenue is a separate Superfund site, remedial activities performed by AMD in Subunit 2 will be addressed in a separate five-year review report.

Hydrogeology

Groundwater flows to the northeast towards San Francisco Bay. The Site is located in the Santa Clara Valley, a structural basin filled with marine and alluvial sediments. The coarser deposits are probably the result of deposition in or near stream channels that drain the highlands that surround the basin. Finer-grained deposits result from a variety of conditions with the eventual result of a heterogeneous sequence of interbedded sands, silts, and clays. Municipal water supply wells tap an extensive deep regional confined aquifer that lies generally greater than 200 to 300 feet below ground surface (bgs). A thick, relatively impermeable aquitard separates this deep confined aquifer from a complex series of laterally discontinuous aquifers and aquitards that can extend up to within a few feet of the ground surface. Four distinct water-bearing zones in the upper

100 feet bgs have been characterized at this site. These coarse-grained, transmissive units are generally composed of sand or sandy gravel. The first encountered water-bearing zone, called the A-zone, is found from 5 to 30 feet bgs. The next encountered water-bearing zone is called the B1-zone and is found from about 30 to 45 feet bgs. The B2-zone is typically found between 45 and 60 feet bgs, and the B3-zone typically occurs between 70 and 90 feet bgs. The aquifer zones are separated by variable thicknesses of composed of clay to silty sand. There is some degree of hydraulic connection between the zones due to the discontinuous nature of the sediment types. The highest concentrations of contaminants exist in the A-zone and B1 zone, and in some locations within the plume, monitoring and extraction wells have been screened across both units. Low levels of VOCs have been detected in the B2-zone, while contaminants have only rarely been detected in the B3-zone. Groundwater flows from south to north in all zones. The groundwater contaminant plume in the A- and B1-zones is approximately 5000 feet long and 2100 feet wide, and extends to Highway 101.

History of Contamination

Site investigations, which began in 1982, identified VOCs in soil and groundwater. Fourteen separate sources of contamination have been identified at the NSC Site. The main chemicals of concern are trichloroethene (TCE), 1,1,1-trichloroethane (TCA), cis-1,2-dichloroethene (DCE), 1,1-dichloroethene, and Freon 113. Relatively low concentrations of other chemicals, including the inorganic salt perchlorate, are also present within the plume in Subunit 1. The perchlorate was released from the former UTC facility, which operated at 1050 East Arques Avenue between 1960 and 1982. NSC assumed responsibility for contamination from the former UTC facility in 1987. VOCs in groundwater are limited to water-bearing units in the upper 60 feet and have not impacted deeper aquifers used for public water supply.

Initial Response

Remedial action at the NSC facility began in 1982 with the removal of underground acid waste sumps and solvent storage tanks. Over 400 cubic yards of contaminated soils have been excavated and disposed. Groundwater extraction and treatment (GWET) began in 1984.

Summary of Basis for Taking Action

The site overlies the Santa Clara Valley groundwater basin. Groundwater from this basin provides up to 50% of the municipal drinking water for over 1.4 million residents of the Santa Clara Valley. The NSC site was made a Superfund site primarily because of the past chemical releases' potential threat to this valuable resource.

IV. Remedial Actions

Remedy Selection

A Baseline Public Health Evaluation (BPHE) was submitted July 3, 1990. The Remedial Investigation/Feasibility Study (RI/FS) was approved by USEPA and the Regional Board in September 1991. These documents form the basis of the remedial action plan. The Regional Board adopted Final Site Cleanup Requirements (SCRs), Order No. 91-137, 91-139, and 91-140 for Subunits 1, 2, and 3 of OU 1 in September 1991. The Final SCRs contain the approved remedy for cleanup at the site. The remedy selected in the SCRs for final site cleanup consisted of the following elements:

- 1) soil vapor extraction and treatment
- 2) groundwater extraction
- 3) treatment of extracted groundwater by air stripping or ozone oxidation
- 4) discharge of treated water under NPDES permit
- 5) deed restriction prohibiting the use of shallow groundwater for drinking water.

The SCRs set cleanup standards at California proposed or adopted Maximum Contaminant Levels (MCLs), EPA MCLs, California Action Levels, or levels based on a risk assessment. These cleanup levels are:

Chemical	Cleanup Standard (ug/l)
Chloroform	100
1,1-dichloroethane (1,1-DCA)	5
cis-1,2-dichloroethene (cis-1,2-DCE)	6
trans-1,2-dichloroethene (trans-1,2-DCE)	6
1,1-dichloroethene (1,1-DCE)	4
Freon 113	1,200
methylene chloride	40
tetrachloroethene	5
toluene	40
1,1,1-trichloroethane (1,1,1-TCA)	200
1,1,2-trichloroethane (1,1,2-TCA)	32
trichloroethene (TCE)	5

Remedy Implementation

The groundwater extraction and treatment system and groundwater monitoring program were fully implemented at the time final SCRs were adopted in 1991. Since adoption of the final SCRs, deed restrictions have been finalized and recorded for most of the NSC facility. Soil vapor extraction and treatment (SVET) was initiated in 1992 and has been conducted in 12 former source areas on the NSC site. SVET has been concluded in ten of these source areas upon receiving confirmation from the Regional Board that soil cleanup objectives were met. One SVET system is still in operation to address VOCs in two adjacent source areas where soil cleanup goals have not been achieved.

Groundwater extraction and treatment has been conducted continuously since 1984. NSC added additional groundwater extraction capabilities in 1986, 1988, 1990, and 1992. During the five-year period covered by this review (1996 to 2001), NSC operated three separate groundwater extraction systems within the plume (on the NSC campus and along East Arques Avenue) and a dewatering/extraction system at the downgradient end of the plume (at Lakeside Drive near Highway 101). In 2001, NSC was operating a total of 32 extraction wells and the Lakeside dewatering system. Effluent from the treatment systems is discharged to Calabazas Creek under NPDES Permit No. CAG 912003.

In September 2001, NSC installed an ozone sparging system with soil vapor extraction (OS/SVE) to address lingering high VOC concentrations at a source area near Buildings 2, 3, and 4. This OS/SVE system was not operational during the five-year period covered by this report; therefore, no data were available to evaluate its performance.

Systems Operation/O&M

Groundwater extraction and treatment has been conducted continuously since 1984. NSC submits groundwater monitoring reports and soil vapor extraction reports to the Regional Board annually. The system operated as designed during the five-year review period.

Costs associated with operation and maintenance of the GWET and SVET systems in Subunits 1 and 3 between September 1996 and August 2001 totaled \$3,935,000.

Progress Since Last Review

VOC concentrations in former source areas and across the plume continue to decline. VOC concentrations in monitoring wells located along the downgradient or perimeter edges of the offsite area have remained stable at low to non-detectable concentrations, demonstrating that hydraulic control of the VOC plume has been achieved.

Between 1996 and 2000, 463 million gallons of groundwater were extracted, from which 1,420 pounds of VOCs were removed. In comparison, almost 2,400 pounds of VOCs

were removed from a similar volume of water during the previous five-year period. The amount of VOCs removed during the last five years has thus declined by 40% from the previous five-year period. Mass removal efficiency has declined from about 6.1 pounds of VOCs per million gallons of water extracted (lbs/MG) in 1991 to 2.6 lbs/MG in 2000.

A total of 23,860 pounds of VOCs were removed by soil vapor extraction between 1992 and 2000. The amount of VOCs removed by SVET is declining, as only one SVET system continues to operate. Three former source areas achieved soil cleanup objectives during the five-year review period.

At the request of the Regional Board, in 2000 NSC analyzed samples from representative monitoring wells on the former UTC property for perchlorate. Perchlorate was used in rocket motor research and design work conducted by UTC at its facility between 1960 and 1982. Perchlorate was detected at concentrations up to 120 micrograms per liter (ug/L) in monitoring wells on the former UTC facility. Although perchlorate concentrations in several wells exceeded the 4 ug/l provisional action level for perchlorate in California, NSC has not been required to modify their remedial actions to address perchlorate. Downgradient migration of perchlorate is not suspected because NSC conducts groundwater extraction along the downgradient side of the former UTC property (East Arques Avenue). Perchlorate was detected at very low concentrations in two extraction wells, but was not detected in the influent or effluent from this treatment system.

VI. Five-Year Review Process

Document Review

This five-year review consisted of a review of relevant documents including NSC's Ten-Year status report (submitted to the Regional Board on December 17, 2001), groundwater monitoring reports, and annual reports. Applicable groundwater cleanup standards contained in the Final Site Cleanup Requirements were reviewed. There have been no changes in the cleanup standards contained in the Cleanup Requirements.

Data Review

Groundwater monitoring data collected from 1991 to 2001 were reviewed to evaluate progress in remediating the groundwater pollutant plume. The combination of SVET and GWET has been successful in controlling migration of the plume, in removing VOC mass from unsaturated and saturated soils, and reducing concentrations of VOCs in groundwater. After almost 20 years of groundwater extraction, however, the amount of VOC mass being removed has declined considerably and VOC concentrations in groundwater may be stabilizing. This observation of an initial significant reduction in VOC concentrations followed by a leveling off of the reduction in VOC concentrations has been found to occur at many other sites in the area and around the country.

A review of the monitoring well data shows that the groundwater pollutant plume has remained stable. Wells at the downgradient end of the plume have remained at either non-detect or at less than the 5 ug/l cleanup standard for TCE since 1989. The plume has not expanded in area since the last five-year review. Contamination remains confined to the shallow aquifers and has not migrated vertically.

Remedial efforts have reduced VOC concentrations in source areas and across the plume. Maximum VOC concentrations in on-site groundwater have been reduced by two orders of magnitude, from over 100,000 ug/L to less than 2,000 ug/L. However, VOC concentrations in groundwater remain above cleanup objectives due to the complexity of site hydrogeology, recalcitrance of the chlorinated solvents, and limitations in current cleanup technology.

No potentially toxic or mobile transformation products have been identified during sampling that were not already present at the time of the Record of Decision, and therefore have cleanup standards specified in the Site Cleanup Requirements.

Site Inspection

A site inspection was conducted on September 25, 2001 by Regional Board Staff. No activities that could interfere with cleanup of the site were observed. The institutional controls that are in place include prohibitions on the use of groundwater until cleanup levels are achieved. No activities were observed that would have violated the institutional controls. VOC contamination is confined to groundwater.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The current groundwater monitoring program is sufficient to track the plume and detect any migration beyond the current plume boundaries, as well as track the effectiveness of remedial actions. Downgradient monitoring wells have remained at non-detect or below the cleanup level. Thus, the plume has not expanded in size and has not migrated vertically. Contamination remains confined to the shallow groundwater bearing zones.

The combination of GWET and SVET continue to remove significant VOC mass from soil and groundwater, and VOC concentrations have declined across the plume. The efficiency of VOC removal through groundwater extraction had declined considerably since the previous five-year review period, however. NSC is evaluating alternate groundwater cleanup technologies to determine whether other methods could achieve cleanup goals more quickly than the methods currently employed.

The institutional controls in place include prohibitions on the use of groundwater until cleanup levels are achieved. No activities were observed that would have violated the institutional controls.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?

There have been no changes to the physical conditions of the site that would affect the protectiveness of the remedy. The use of the site and the downgradient area under which the groundwater plume has migrated remains commercial, light industrial, and office space.

There have been no changes to Applicable, Relevant, and Appropriate Requirements (ARARs) for the site and no new standards that would affect the protectiveness of the remedy. TCE and 1,2-DCE are the primary chemicals whose concentrations still routinely exceed the cleanup standards. Groundwater cleanup standards for these chemicals have not changed since the ROD was issued. A large portion of the groundwater plume contains VOCs at concentrations that exceed cleanup objectives. Perchlorate was detected within the plume during the five-year review period at concentrations that exceed the California action level, but NSC's groundwater extraction system along East Arques Avenue is preventing significant downgradient migration of perchlorate. Perchlorate is not deemed to pose a human health risk as long as shallow groundwater is not used as a source of drinking water.

The exposure assumptions used to develop the Human Health Risk Assessment were for potential future exposure if untreated groundwater were to be used for drinking water and if residential uses were to occur on the site. These assumptions are considered to be conservative in evaluating risk and developing risk-based cleanup levels. Institutional controls prohibit the use of groundwater and groundwater is not currently used at the site. The land use of the site is commercial/industrial.

Recently, USEPA Region IX has issued new, provisional guidance regarding toxicity of TCE, which is the primary contaminant of concern at this site. The new guidance significantly lowers the levels at which TCE is considered to pose a risk to human health. Also, USEPA has re-evaluated the attenuation factors for volatilization of VOCs from groundwater into soil gas, and from soil gas into indoor air, and this has led to changes in the way the vapor intrusion pathway into indoor air is modeled. These changes in evaluating risk from VOCs could call into question the protectiveness of the remedy in terms of its ability to limit exposure to VOC vapors in indoor air.

The Regional Board has developed risk-based screening levels for a variety of exposure routes including vapor intrusion into buildings from underlying groundwater contamination. The current levels of TCE and 1,2-DCE in groundwater at the site are below screening levels for potential indoor air risk for a commercial/industrial scenario, but may exceed the screening levels for a residential use scenario, particularly when new USEPA guidance on TCE toxicity is used in the risk assessment.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

Provisional USEPA guidance on the toxicity of TCE and new concerns regarding intrusion of volatile organic vapors requires a re-evaluation of the protectiveness of the remedy at the NSC site. NSC has been required by the Regional Board to re-evaluate human health risk associated with vapor intrusion of TCE, but the results of this evaluation are not available at this time.

By June 30, 2004, we expect to be able to make a more definitive statement regarding the protectiveness of the remedy as it relates to indoor air/vapor intrusion concerns.

Technical Assessment Summary

According to the data reviewed and the site inspection, the remedy is functioning as intended by the Record of Decision. There have been no changes in the physical condition or land use of the site that would effect the protectiveness of the remedy. However, recent provisional guidance issued by USEPA Region IX regarding toxicity of TCE significantly lowers the levels at which TCE is considered to pose a risk to human health. This and other recent changes in assessing risk from VOCs could call into question the protectiveness of the remedy in terms of its ability to limit exposure to VOC vapors in indoor air.

Issues

Two issues identified during the review are 1) the declining effectiveness of groundwater extraction and treatment over time, and 2) potential concerns over vapor intrusion into indoor air, based on new USEPA guidance regarding the toxicity of TCE.

Recommendations and Follow-up Actions

To address declining effectiveness of the current remedy, NSC is currently evaluating other alternate remedial technologies to determine whether other cleanup technologies could reduce the time until cleanup goals are achieved. To address the vapor intrusion issue, NSC has been required to re-evaluate the potential human health risk associated with vapor intrusion into indoor air.

X. Protectiveness Statement

Remedial actions conducted at the site are functioning as designed; however, it is doubtful that groundwater cleanup goals will be achieved for another ten years under the current remedy. In the interim, the remedy is protective of human health and the environment in terms of limiting ingestion of contaminated water through the use of

institutional controls prohibiting the use of shallow groundwater. The declining effectiveness of groundwater extraction and treatment does not adversely affect the protectiveness of the remedy because it is the direct result of declining VOC concentrations in the groundwater.

Recent provisional guidance issued by USEPA Region IX regarding the toxicity of TCE significantly lowers the levels at which TCE is considered to pose a risk to human health. This and other recent changes in the methodology of assessing risk from VOCs requires a re-evaluation of the protectiveness of the remedy in terms of its ability to limit exposure to VOC vapors in indoor air. NSC has been required to re-evaluate human health risk associated with vapor intrusion of TCE, but the results of this evaluation are not available at this time.

By June 30, 2004, we expect to be able to make a more definitive statement regarding the protectiveness of the remedy as it relates to indoor air/vapor intrusion concerns.

XI. Next Review

The next five-year review for the NSC Superfund Site is required by September 30, 2006.